## Instructions to Recreate the Dissipation of Stop-and-Go Waves Graphs Using MATLAB

- 1. If you do not have MATLAB installed, download and install MATLAB
  - a. Sign in to your MathWorks account or create a new one
    - i. <a href="https://www.mathworks.com/login?uri=%2Fmwaccount%2F">https://www.mathworks.com/login?uri=%2Fmwaccount%2F</a>
    - ii. To access your organization's MATLAB license, use your work or university email
  - b. Download and install MATLAB for your operating system:
    - i. <a href="https://www.mathworks.com/downloads/">https://www.mathworks.com/downloads/</a>
- 2. Download the experiment data and files (Dissipation of Stop-and-Go Waves via Control of Autonomous Vehicles: Experimental Results: Data):
  - a. <u>Download Data Files</u>
- 3. Unzip the files from your downloads folder
- 4. Open MATLAB and navigate to the vehicle\_trajectory\_data\_code folder that was downloaded in the previous step
- 5. Open the "code" folder within vehicle trajectory data code folder
- 6. In the MATLAB command window, run the following: "synchronize\_test\_data" and hit enter
  - a. This will save a file 'synchronized\_data.mat' with a structure for each experiment conducted
- 7. To plot the data, run the following in the MATLAB command window:
  - "plot synchronized data" and hit enter
- a. This will create all of the figures and tables in the experiment A video tutorial is also available <a href="here">here</a>.